

# ABBY OVERVIEW

ABBY is a new safe, advanced, affordable smart wheelchair for adults with reduced mobility.



## Our Solution

We based ABBY on the traditional rear-wheel-drive wheelchair format most suited for the developing world, updated with **machine vision & IoT** to compete in multiple categories, for increased safety, to extend the reach of family and caregivers; even combat loneliness, unlocking its full potential.

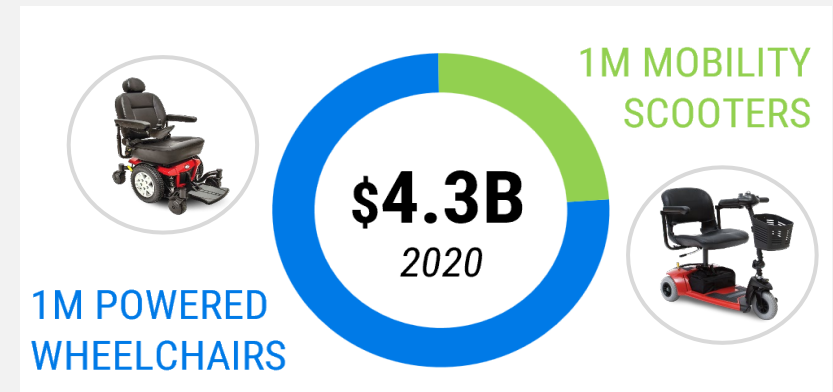
## The Problem

**Manual wheelchairs** have been popular for centuries because they are versatile, lightweight and inexpensive, but they can be difficult to use independently, especially as we age.

**Power Wheelchairs** weigh hundreds of pounds, cost tens of thousands of dollars & need minivans with ramps to transport.

**Mobility Scooters** were created as an inexpensive alternative, but the three wheeled ones are dangerously unstable, and anything with handlebars can't maneuver well indoors.

**2 million** power chairs & scooters were manufactured in 2020 and most were sold B2B as Medical Devices **for over \$4B** to 3rd party insurance payors.



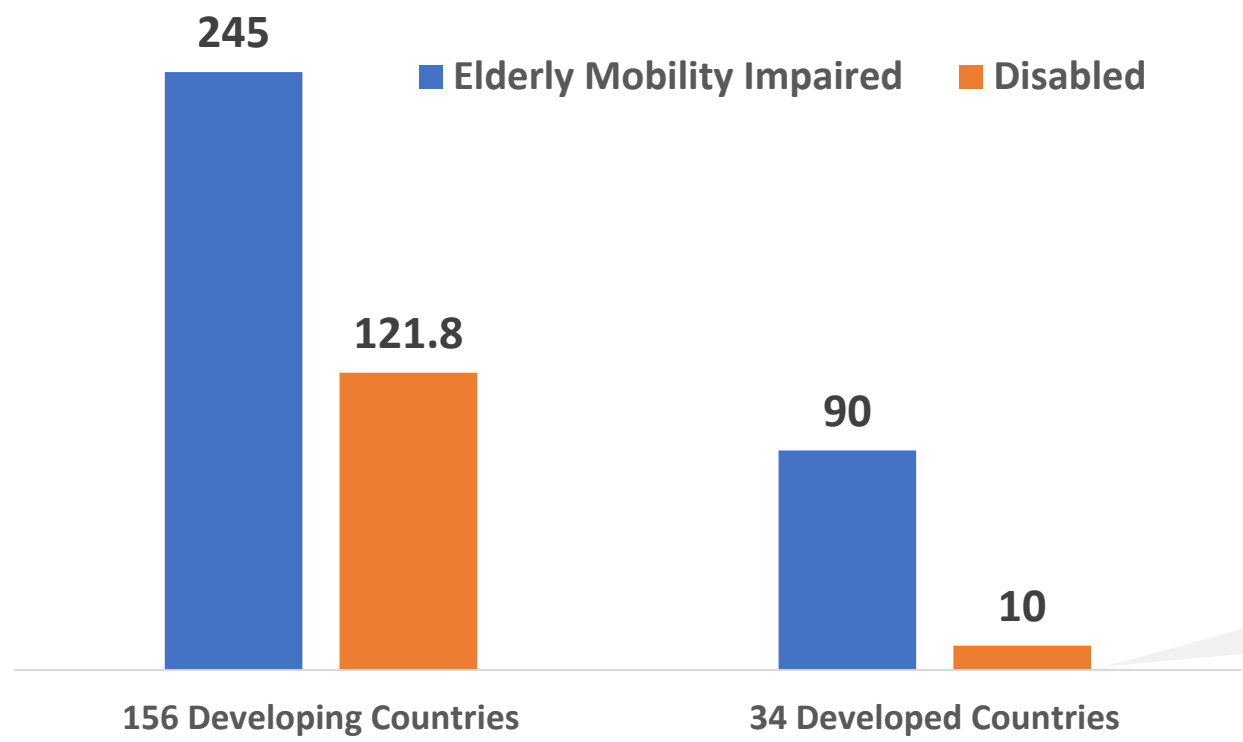
**Despite almost \$7B in 2020 wheelchair sales & 5% CAGR, the status-quo B2B healthcare "scarcity" model** incentivizes overpricing and underproduction of mobility devices, constraining supply AND **leaving manual chairs as the sole option for the vast majority of people with reduced mobility worldwide.**



# MARKET SIZE / INDUSTRY FORECAST

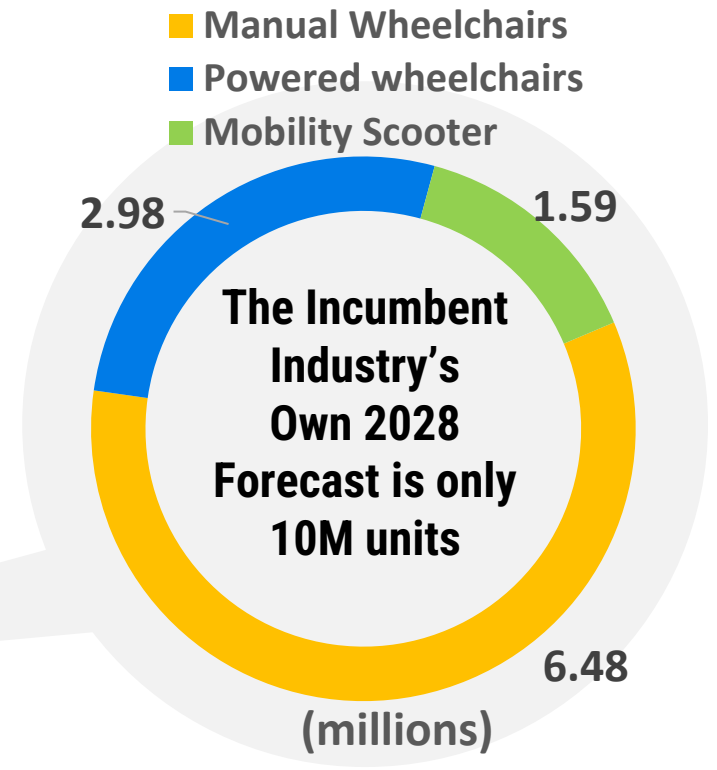
## How Many Wheelchairs Are Needed?

2030 Adults Needing Wheelchairs (millions)



**Hundreds of Millions of Wheelchairs Are Needed TODAY**

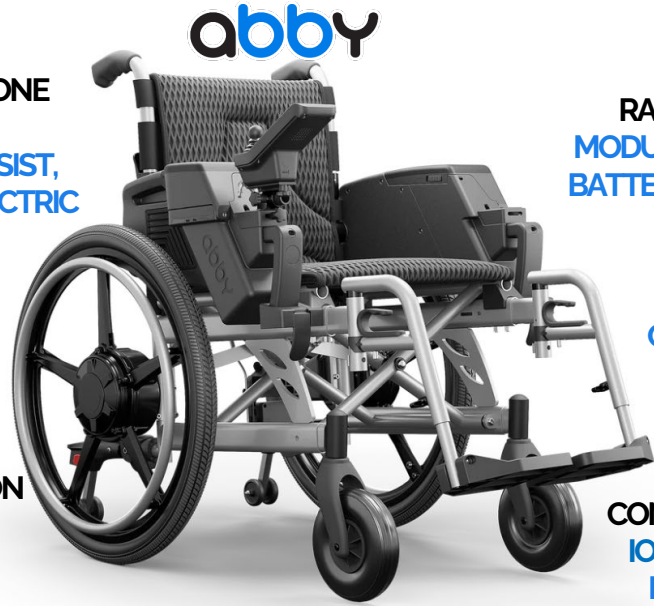
## How Many Wheelchairs Are Produced?



**The \$9B Incumbent Industry Plans To Manufacture 10 Million by 2028**



# PRODUCT



**abby**

**THREE-IN-ONE  
MANUAL,  
POWER ASSIST,  
& FULL ELECTRIC**

**QUICK-RELEASE,  
TOOL-FREE DIY  
ASSEMBLY  
& SERVICE**

**MACHINE VISION  
CAMERAS  
& SENSORS  
FOR SAFETY**

**RANGE  
MODULAR  
BATTERIES**

**DAILY-LIFE  
CONVENIENCE**

**CONNECTIVITY  
IOT, CLOUD &  
MOBILE APP**

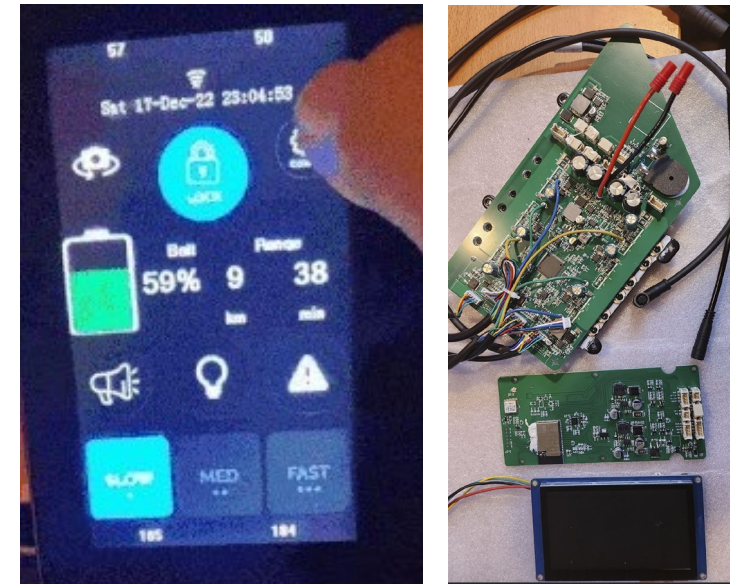
ABBY Features Overview  
[\(click to play video\)](#)

## We Believe

**Powered Mobility Can Be Safe, Advanced & Affordable For Everyone –  
Regardless of Income or Insurance**

**As The Ideal Manual/Power Hybrid in Developing Markets**

**Able to Compete in Multiple Categories in Developed Markets**



IoT & Robotic Controller Features Overview  
[\(click to play video\)](#)

**ABBY's IoT/Robotic Controller**

**Roadmap Agility & Independence**

**Cost Of Goods Advantage**

**Software Subscriptions -> Socially Assistive Robotics**

# COMPETITION



\* Braze Mobility Sensors  
\* Luci Smart Sensors

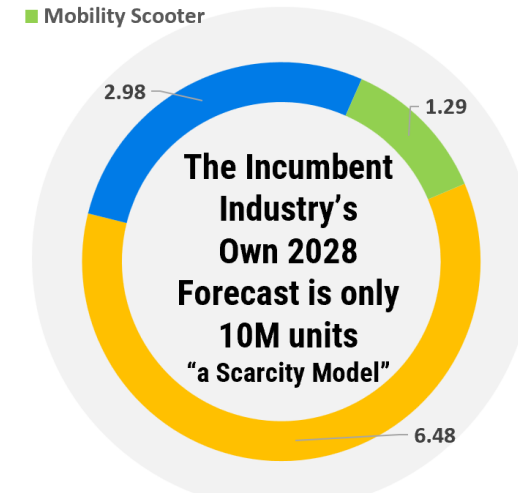
\*\* ElliQ Companion  
[Learn About Technology Adoption](#)

Mobility Scooters	Travel Chairs	Power Chairs	Feature / Brand	ABBY	E-Fix	E-Motion	Xtender	SmartDrive	SMOOV
No	No	No	Reverse Camera	Yes	No	No	No	No	No
No	No	*\$2,500+ Add-on	Collision Avoidance	Yes	No	No	No	No	No
No	No	No	** Companion Robotics	Yes	No	No	No	No	No
No	No	No	Power Assist	Yes	No	Yes	Yes	Yes	Yes
No	Yes	Yes	Joystick	Yes	Yes	No	No	No	No
No	No	No	Armrest Table Clearance	Yes	No	N/A	N/A	N/A	N/A
No	No	No	Remote Control	Yes	No	No	No	No	No
No	Yes	No	Modular Spare Battery	Yes	No	No	No	No	No
No	No	Yes	Speaker	Yes	No* bell	No	No	No	No
Yes	No	Yes	Lighting	Yes	No	No	No	No	No
No	Yes	No	Portable	Yes	Yes	Yes	Yes	Yes	Yes
9KPH	6KPH	10KPH	Top Speed	10KPH	6KPH	8KPH	6KPH	6KPH	9.5KPH
330	200	350	Maximum User Weight	330	330	330	265	330	330
100	35	300	Weight (w/typical chair)	72	80	60	94	48	50
No	No	Yes	Mobile App	Yes	Yes	Yes	No	Yes	Yes
Yes	Yes	Yes	Wheelchair included	Yes	No	No	No	No	No
\$1,500	\$1,995	\$4,000 - \$40,000	Price	\$3,950	\$6,500	\$5,996	\$8,045	\$6,600	\$5,600

Our Serviceable Market in developed countries is

**4M Units/Year**

Manual Wheelchairs      Powered wheelchairs  
Mobility Scooter



Plus, millions more in Developing Countries

ABBY is competitive with the Incumbent brands in EVERY category

## Vs. 1M POWER WHEELCHAIRS

- Vs. Power Chair (low dependence users)
- Vs. Travel Chair
- As Portable 2<sup>nd</sup> Power Chair

## Vs. 1M MOBILITY SCOOTERS

- Vs. Three & Four-wheelers
- As AGE TECH (w/Social Assistive Robotics)

## Vs. 2M POWER ADD-ONS

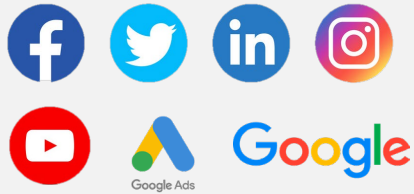
- Vs. Transport Chair for home use
- Vs. Existing Power Add-ons
- As First Power Chair



# MARKETING

## DTC Personal EV (US)

Paid Digital -> E-Commerce



+ Drop Ship Channel Partners (2025)

Assistive Tech / Mobility Events



## B2B2C 510K FDA Class II Medical Device (US)



Users with benefit coverage



OT/PT/MD  
Prescriptions

Regulated Distribution  
via a Single Nationwide  
Partner



## TBD/Hybrid Global Expansion



### Americas

- Amazon.com ↗
- Amazon.ca ↗
- Amazon.com.mx ↗
- Amazon.com.br ↗
- Amazon.co.jp ↗
- Amazon.in ↗
- Amazon.com.au ↗
- Amazon.sg ↗

### Europe

- Amazon.co.uk ↗
- Amazon.de ↗
- Amazon.es ↗
- Amazon.fr ↗
- Amazon.it ↗
- Amazon.nl ↗
- Amazon.pl ↗
- Amazon.se ↗
- Amazon.com.tr ↗

FDA Cleared ABBY

CE MDR ISO 13485

Basic ABBY (\$1999 target)

Software Subscription Revenue Roadmap

2024

2025

2026

2027

2028...

# TRACTION

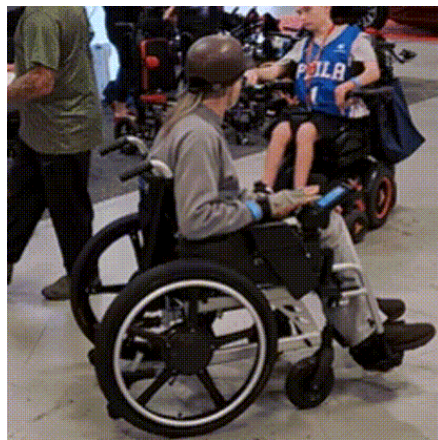
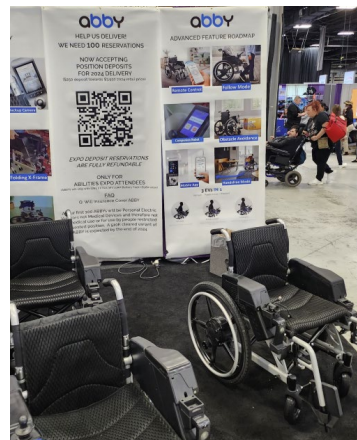
**Abilities EXPO** | The event for the disability community

## NEW YORK METRO

May 5-7, 2023

New Jersey Convention & Expo Center

Fri. 11am-5pm | Sat. 11am-5pm | Sun 11am-4pm



We received 44 visitors and 9 test drives were conducted at ABBY's booth at Abilities Expo NY May 5,6,&7. The feedback from prospective customers on features and price was overwhelmingly positive. We could have sold 3 or 4 units each day if we were ready and many times found ourselves having to politely decline cash offers for the demo chairs.



**30**  
INITIAL UNITS  
PRODUCED



**70%**  
GROSS  
MARGIN



**50**  
PRE-ORDER  
DEPOSITS



**1500**  
BUYER  
WAITLIST

### PRODUCTION READY

- ✓ Molds & Tooling
- ✓ PCB Masters
- ✓ Frame Jigs
- ✓ Unit Economics

### MARKET VALIDATION

- ✓ Awareness
- ✓ Product Fit
- ✓ Demand
- ✓ Pricing



We met our first pilot customer **Dr. Staton** last year after he discovered ABBY on WeFunder (investing \$10,000) – He reached out to our general mailbox and after we spoke, he more than doubled his investment to \$25,000 AND volunteered to become a pilot user.

On 5 Feb we delivered his ABBY in Tennessee (and booked our first \$3,950 in revenue). Since then he's enjoyed far greater mobility and continues to give us exactly the sort of end-user feedback we need to validate the hardware and software in real-world conditions.

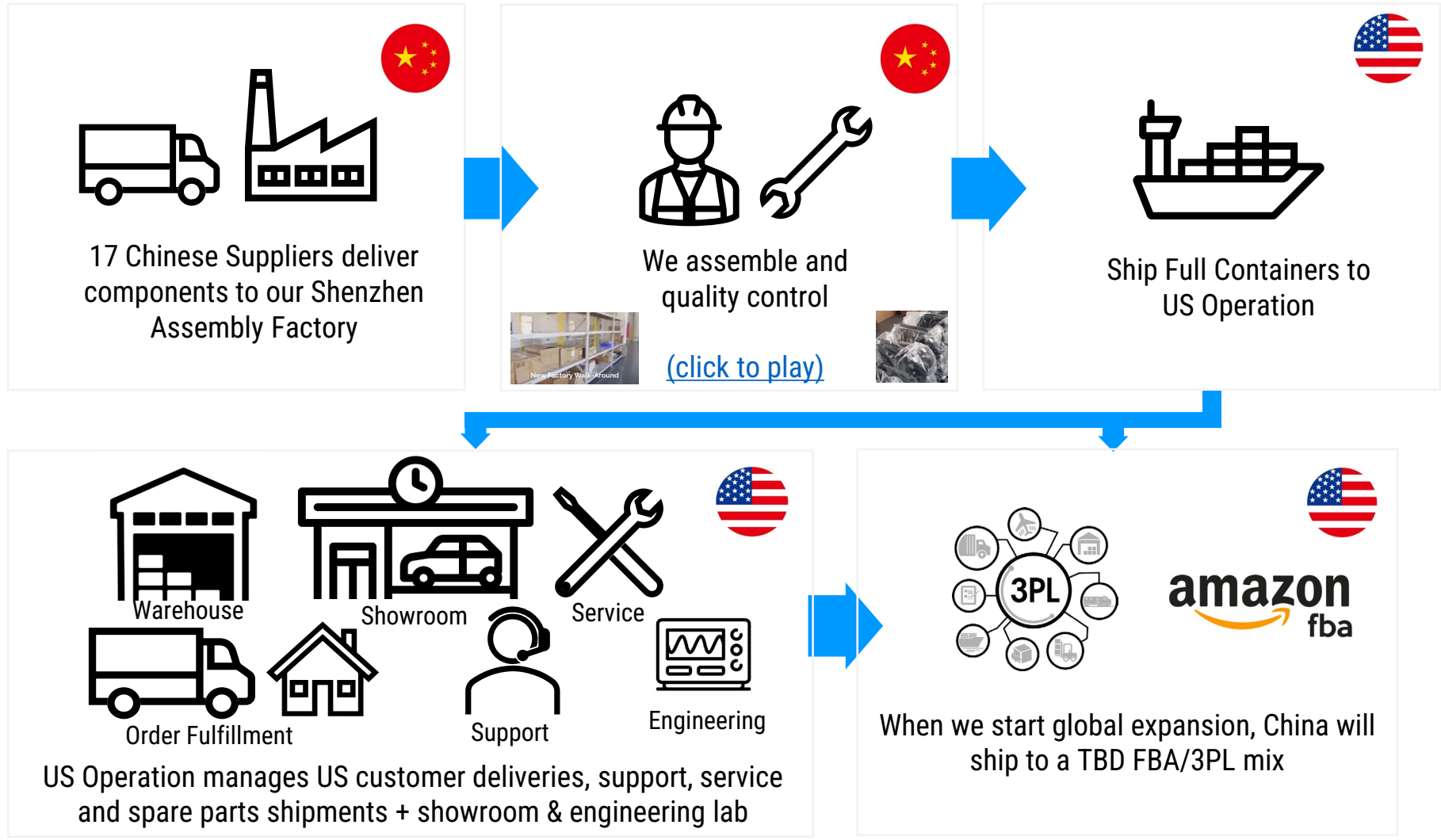
**We delivered our 2nd ABBY paid pilot to Rebecca Armstrong** shortly after the Expo. Ms. Armstrong has CP and recently retired as Child Life Program Director for Presbyterian Hospital in Albuquerque, NM. We delivered Rebecca's ABBY to her while she was vacationing on Fire Island NY without her 300lb primary power chair. She was so happy to be mobile on vacation she drove around with a cardboard sign promoting our new ABBY website all day.





# OPERATIONS

Assembly and QC by our Factory in Shenzhen - full containers sent a single US combination warehouse/service center/lab/showroom coordinating end-user door delivery, service and support. Once we have a working formula for operations and growth we'll migrate to a mix of FBA and 3PLs for international expansion.





# FINANCIALS

<b>Forecast</b> (Units)	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>	<b>2028</b>	<b>2029</b>	<b>2030</b>
Sold	350	2,100	7,350	18,375	36,750	54,230	110,306
Price	3,950	3,950	3,950	3,753	3,377	2,875	2,350
Cost	1,100	1,089	926	833	750	744	698
<b>P&amp;L</b> (\$,000s)							
Revenue	1,388	8,326	29,140	69,207	124,572	155,911	259,219
Cost of Goods	388	2,303	6,860	15,450	27,835	36,789	62,891
<b>Gross Profit</b>	<b>1,000</b>	<b>6,023</b>	<b>22,279</b>	<b>53,757</b>	<b>96,737</b>	<b>119,122</b>	<b>196,328</b>
%	72%	72%	76%	78%	78%	76%	76%
Product Development	293	610	1,088	1,845	3,783	4,990	6,589
	21%	7%	4%	3%	3%	3%	3%
Service & Fulfillment	281	1,269	3,859	8,943	15,821	20,200	35,899
	20%	15%	13%	13%	13%	13%	14%
Sales & Marketing	418	967	4,778	14,870	31,134	41,302	65,591
	30%	12%	16%	21%	25%	26%	25%
Administration	809	1,644	3,793	7,766	12,935	17,334	27,910
	58%	20%	13%	11%	10%	11%	11%
<b>Net Profit</b>	<b>(801)</b>	<b>1,532</b>	<b>8,762</b>	<b>20,332</b>	<b>33,063</b>	<b>35,296</b>	<b>60,339</b>
%	-58%	18%	30%	29%	27%	23%	23%
Average FTE	9	14	28	54	97	144	180

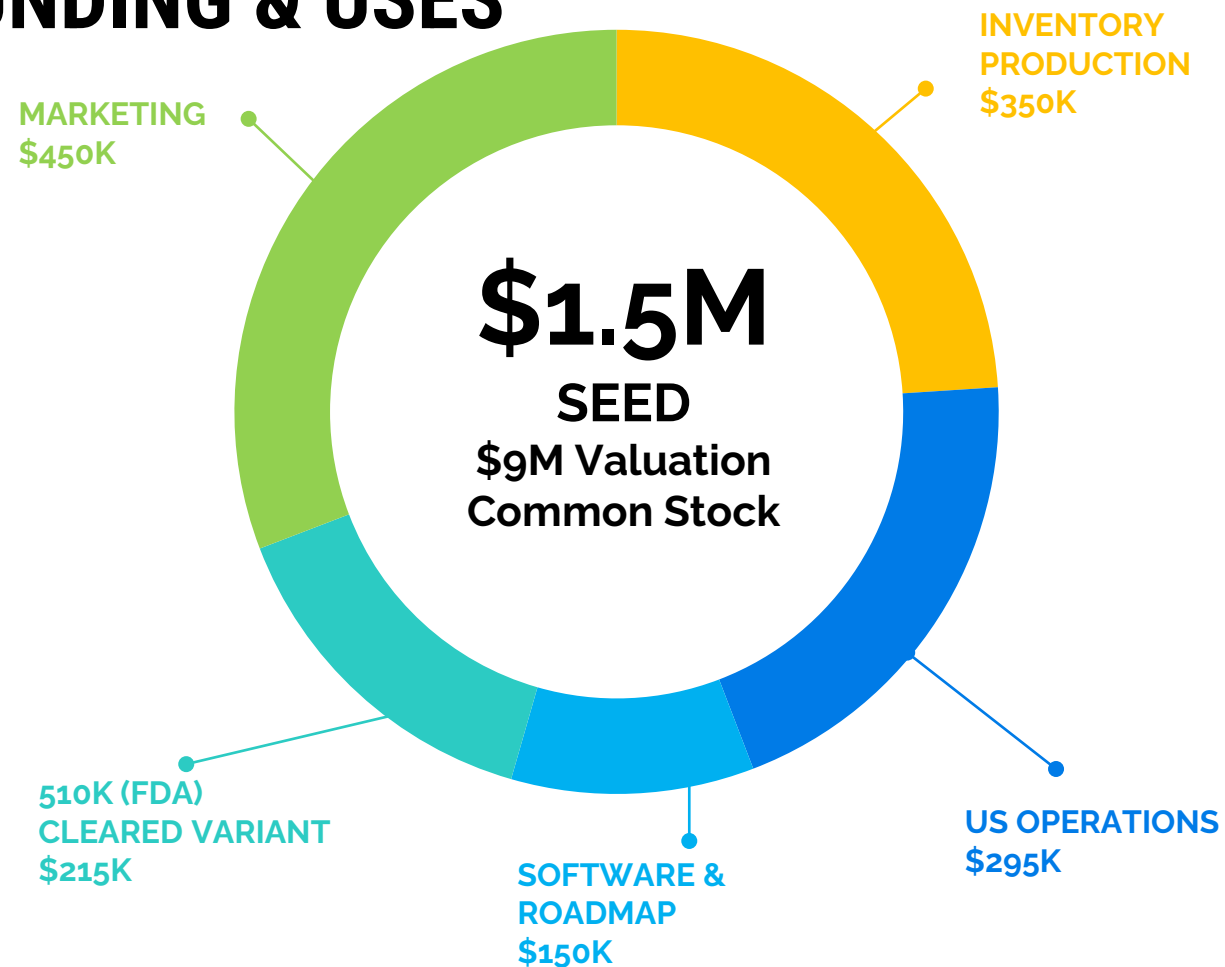
**65,000** Units  
in Five Years  
(~1.5% of US PMD market)

**PROFITABLE**  
After 1,000 Units  
(~Month 20)

2024 – US DTC  
2025 – US + B2B (FDA510K)  
2026 – +30 + FBA (CE MD/ISO 32485)  
+ Basic ABBY below 3,000  
2028 – +15 Developing countries



# FUNDING & USES



## Key Results by Y2

- Production capacity for 300 units/month
- US operation
- Foundation for growth
- FDA cleared variant – start B2B regulated sales in US
- Profitable (~ month 20 w/1000 units shipped)

## ...by Y5

- 65,000 Units
- B2B regulated sales in US
- Global expansion (FBA markets w/CE MD ISO13485)
- Basic (< \$2,000) ABBY
- Software subscription roadmap

## Growth Round in 2026 ... by 2030

- 250,000 units – fastest growing major brand
- Active in 30 developed & 15 developing countries
- Pursuing product & business model adjacencies for growth (e.g., Financing, Technology Licensing, etc.)

\$1.5M seed round for US launch - \$10M post-seed in 2026 for global expansion

- Key Hires (US & Sr. Team)
- Facilities & Admin (US Operations, Insurances, IP)
- Launch (Paid Marketing, Events, Drop-ship channels)
- Roadmap (Regulatory FDA & CE MDR, Software, Mobil App, Basic Version)
- Beachheads in EU, APAC, MEA, LTAM by 2027

# MANAGEMENT – TEAM ABBY



**JOHN  
DEBENEDETTE**

CEO &  
Founder  
(NJ)



**WEI  
WEN JING**

Chief of Design &  
Engineering  
(SHENZHEN)



**DR. CLARENCE  
TAN**

Investor &  
Co-founder  
(GOLD COAST)



**DR. BRENT  
STATON**

Investor &  
Medical Advisor  
(TENNESSEE)



**JASON  
SCHER**

Investor &  
Product Advisor  
(CHICAGO)



**Lynn Wei**  
*Software*

- 10 years embedded systems development in consumer electronics and rideable EV products



**Prawwaree  
Paonil**  
*Brand & Marketing*

- 7 years at Group-M digital agency with global brand accounts (Amway, Nestle, Volvo Cars)
- 3 years creative, design, game and UX&UI

Advisor

